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| 09/985,954      | 11/06/2001  | Marcus Pfeifer       | 33766W064           | 4175             |

7590

02/04/2005

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| EXAMINER |
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TRAN, HIEN THI

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| ART UNIT | PAPER NUMBER |
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1764

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/985,954

Applicant(s)

PFEIFER ET AL.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 19-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/29/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of group I, claims 1-18 in the reply filed on 11/15/04 is acknowledged. The traversal is on the ground(s) that the search for both groups will not impose an undue burden on the examiner. This is not found persuasive because the search for the apparatus is not the same as that of the method claims as evidenced by the different class/subclass as set forth in the previous office action.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 19-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/15/04.

### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "6" (Figs. 2-3). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet

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submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

#### ***Specification***

6. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Claim Objections***

7. Claims 1, 3 are objected to because of the following informalities:

In claim 1, line 3 --of nitrogen oxide-- should be inserted before "and".

In claim 3, line 1 "further comprising that" should be changed to --wherein--.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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9. Claims 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, it is unclear as to how the member of the platinum group metals is related to the catalytically active component set forth in claim 1.

In claim 10, it is unclear as to what structural limitation applicants are attempting to recite, what is intended by "a catalytically active component ... catalyzed with at least one of the platinum group metals ...", how the catalytically active component is related to the catalytically active component set forth in claim 1.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 198 06 062.

DE 198 06 062 discloses an exhaust gas treatment unit comprising: at least one catalyst with a catalytically active component for selective catalytic reduction and at least one storage component for nitrogen oxides (claims 1-3).

DE 198 06 062 discloses that the catalytically active component comprises titanium dioxide, vanadium, molybdenum oxide and tungsten oxide (claim 3).

Instant claims 1-3 structurally read on the apparatus of DE 198 06 062.

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12. Claims 1-2, 5-6, 9-11, 13, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 666,099.

With respect to claims 1-2, 5-6, EP 666,099 discloses an exhaust gas treatment unit comprising: at least one catalyst having a refractory inorganic oxide, e.g. titania, a catalytically active component for selective catalytic reduction, e.g. vanadium, and at least one storage component for nitrogen oxides selected from the group consisting of an alkali metal, e.g. lithium, sodium, potassium, etc., an alkali earth metal, e.g. barium, calcium (see, for example, page 4, lines 5-55).

With respect to claims 9-10, EP 666,099 discloses that the catalyst comprises at least one member of platinum group metals selected from the group consisting of platinum, palladium, rhodium and iridium, and a support oxide, such as alumina, silica, ceria, etc. (see, for example, page 8, lines 32-40).

With respect to claims 11, 13, EP 666,099 discloses that the catalyst is present in form of a honeycomb structure specified as a full extrudate or in the form of coating on an inert carrier honeycomb structure (see, for example, page 8, line 45 to page 9, line 6).

With respect to claim 16, EP 666,099 discloses that an oxidation catalyst is located in the exhaust gas treatment unit, upstream of the catalyst (see, for example, page 9, lines 51-54).

Instant claims 1-3, 5-6, 9-11, 13, 16 structurally read on the apparatus of EP 666,099.

13. Claims 1-10, 13, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 723,805.

With respect to claims 1-2, 5-9, EP 723,805 discloses an exhaust gas treatment unit comprising: at least one catalyst with a catalytically active component for selective catalytic

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reduction, such as vanadium-titanium dioxide and at least one storage component for nitrogen oxides including noble metal, such as platinum, etc., and at least one of alkali earth metal, alkali metal, etc. (see, for example, page 9, lines 48-58; page 11, lines 54-58, page 12, lines 36-45).

With respect to claims 3-4, EP 723,805 discloses that the catalytically active component also contains acid form of zeolite (see, for example, page 10, lines 1-9).

With respect to claims 10, 13, EP 723,805 discloses that the catalyst also comprises support oxide, such as alumina and the catalyst is present in form of coating on an inert carrier honeycomb structure (see, for example, page 7, lines 30-34).

With respect to claim 16, EP 723,80 discloses that an oxidation catalyst 3 is located in the exhaust gas treatment unit, upstream of the catalyst.

Instant claims 1-10, 13, 16 structurally read on the apparatus of EP 723,805.

14. Claims 1, 4-5, 8-9, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 935,055.

With respect to claims 1, 5, 8, EP 935,055 discloses an exhaust gas treatment unit comprising: at least one catalyst 12 with a catalytically active component for selective catalytic reduction, and at least one storage component for nitrogen oxides, such as an alkali metal, an alkali earth metal, etc. (see, for example, page 5, section 0017).

With respect to claim 4, EP 935,055 discloses the catalytically active component contains at least one zeolite being exchanged with metal ion (see, for example, section 0019).

With respect to claim 9, EP 935,055 discloses that the nitrogen oxides storage component includes noble metal, such as Pt, Pd, etc. (see, for example, section 0017).

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With respect to claims 13-15, EP 935,055 discloses that the catalyst is present in form of a honeycomb in the form of coatings on an inert carrier honeycomb structure (see, for example, page 6, sections 0017-0019, 0024).

Instant claims 1, 4-5, 8-9, 13-15 structurally read on the apparatus of EP 935,055.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone



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teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

18. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 723,805 in view of EP 666,099.

The apparatus of EP 723,805 is substantially the same as that of the instant claims, but fails to disclose the specific arrangement of the catalytically active component and the nitrogen oxide storage component in the catalyst.

EP 666,099 discloses that the catalyst is present in form of a honeycomb structure specified as a full extrudate or in the form of coating on an inert carrier honeycomb structure (see, for example, page 8, line 45 to page 9, line 6).

However, at the time of the invention was made, it would have been obvious to one skilled in the art to arrange the layers for the catalyst since positioning the parts of the apparatus is no more than a design choice, and well within the knowledge of one skilled in the art as evidenced by EP 666,099 and since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

19. Claims 12, 14-15, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 723,805 in view of EP 935,055.

The apparatus of EP 723,805 is substantially the same as that of the instant claims, but fails to disclose the specific arrangement of the catalytically active component and the nitrogen oxide storage component in the catalyst.

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The same teachings of EP 935,055 apply.

However, at the time of the invention was made, it would have been obvious to one skilled in the art to arrange the layers for the catalyst since positioning the parts of the apparatus is no more than a design choice, and well within the knowledge of one skilled in the art as evidenced by EP 935,055 and since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

With respect to claims 17-18, the catalyst 7a of the plurality of catalysts 7a-c in EP 723,805 is considered as a hydrolysis catalyst, and the catalyst 7c of the plurality of catalysts 7a-7c or the catalyst 8 is considered as an ammonia barrier catalyst.

### ***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zurbig et al and Konrad et al are cited for showing state of the art.

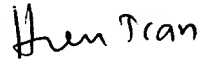
21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HT

**Hien Tran**  
**Primary Examiner**  
**Art Unit 1764**